

What is claimed is:

1. A circuit interrupting device comprising:

5 a housing;

a phase conductive path and a neutral conductive path each disposed at least partially within said housing between a line side and a load side, said phase conductive path terminating at a first connection capable of being electrically connected to a source of electricity, a second connection capable of conducting electricity to at least one load and a third connection capable of conducting electricity to at least one user accessible load, and said neutral conductive path terminating at a first connection capable of being electrically connected to a source of electricity, a second connection capable of providing a neutral connection to said at least one load and a third connection capable of providing a neutral connection to said at least one user accessible load;

15 a circuit interrupting portion disposed within said housing and configured to cause electrical discontinuity in said phase and neutral conductive paths between said line side and said load side upon the occurrence of a predetermined condition;

a reset portion disposed at least partially within said housing and configured to reestablish electrical continuity in said phase and neutral conductive paths;

20 said circuit interrupting portion further comprising a reset lockout portion that prevents reestablishing electrical continuity in said phase and neutral conductive paths if said circuit interrupting portion is non-operational, if an open neutral condition exists or if a reverse wiring condition exists, wherein said reset portion comprises:

a reset button;

25 at least one reset contact which when depressed is capable of contacting at least a portion of said phase conductive path to cause said predetermined condition, wherein if said circuit interrupting portion is operational, the circuit interrupting portion is activated to disable said reset lockout portion and facilitate reestablishing electrical continuity in said phase and neutral conductive paths, and wherein if said circuit interrupting portion is non-operational, said reset lockout portion remains enabled so that reestablishing electrical continuity in said phase and neutral conductive paths is prevented; and

a shaped member located within the housing controlled by the circuit interrupting portion to block the third connection from being connected to a user accessible load when the circuit interrupting portion is non-operational, an open neutral exists or a reverse wiring condition exists.

5

2. The circuit interrupting device of claim 1 wherein the shaped member is adapted to assume a first position to prevent the third connection being connected to the user accessible load while the circuit interrupting portion is non-operational and a second position to allow the third connection to be connected to the user accessible load while the circuit interrupting portion is operational.

10

3. The circuit interrupting device of claim 2 wherein the shaped member is positioned to the first or second position by the circuit interrupting portion.

15

4. The circuit interrupting device of claim 3 wherein the shaped member comprises a blocking member coupled to be moved by a cantilever member which engages the circuit interrupting portion.

5. The circuit interrupting device of claim 4 wherein the shaped member is non-conducting.

20

6. A circuit interrupting device comprising:
a housing;
a first electrical conductive path disposed at least partially within said housing and terminating at a first connection, said first connection capable of being electrically connected to a source of electricity,

25

a second electrical conductive path disposed at least partially within said housing and terminating at a second connection, said second connection capable of being electrically connected to at least one load when electrical continuity between said first and second electrical conductive paths is made:

30

a third electrical conductive path disposed at least partially within said housing and terminating at a third connection, said third connection capable of being electrically connected to

at least one user accessible load when electrical continuity between said first and third electrical conductive paths is made;

a circuit interrupting portion disposed within said housing and configured to break electrical continuity between said first and second conductive paths and between said first and third conductive path upon the occurrence of a predetermined condition;

a reset portion disposed at least partially within said housing and configured to make electrical continuity between said first and second conductive paths and between said first and third conductive paths;

said circuit interrupting device further comprising a reset lockout portion that prevents the making of electrical continuity between said first and second conductive paths and between said first and third conductive paths, if said circuit interrupting portion is non-operational;

wherein said reset portion comprises:

a reset button;

at least one reset contact which when depressed is capable of contacting at least a portion of one of said first or second conductive paths to cause said predetermined condition, wherein if said circuit interrupting portion is operational, said circuit interrupting portion is activated to disable said reset lockout portion and facilitate making of electrical continuity between said first and second conductive paths and between said first and third conductive paths, and wherein if said circuit interrupting portion is non-operational, said reset lockout portion remains enabled so that making of electrical continuity between said first and second conductive paths and between said first and third conductive paths is prevented; and

shaped member having at least one window coupled to the circuit interrupting portion to block the third connection from being connected to a user accessible load upon the occurrence of the predetermined condition.

7. A circuit interrupting device comprising:

a housing;

a first electrical conductive path disposed at least partially within said housing and terminating at a first connection, said first connection capable of being electrically connected to a source of electricity,

a second electrical conductive path disposed at least partially within said housing and terminating at a second connection, said second connection capable of being electrically connected to at least one load when electrical continuity between said first and second electrical conductive paths is made:

5 a third electrical conductive path disposed at least partially within said housing and terminating at a third connection, said third connection being electrically connected to the second electrical conductive path and capable of being electrically connected to at least one user accessible load when electrical continuity between said first and second electrical conductive paths is made;

10 a circuit interrupting portion disposed within said housing and configured to break electrical continuity from said first to said second and third conductive paths upon the occurrence of a predetermined condition;

 a reset portion disposed at least partially within said housing and configured to make electrical continuity from said first to said second and/or third conductive paths;

15 said circuit interrupting device further comprising a reset lockout portion that prevents the making of electrical continuity from said first to said second and third conductive paths, if said circuit interrupting portion is non-operational;

 wherein said reset portion comprises:

 a reset button; and

20 at least one reset contact which when depressed is capable of contacting at least a portion of one of said first, second or third conductive paths to cause said predetermined condition, wherein if said circuit interrupting portion is operational, said circuit interrupting portion is activated to disable said reset lockout portion and facilitate making of electrical continuity from said first to said second and third conductive paths, and wherein if said circuit interrupting
25 portion is non-operational, said reset lockout portion remains enabled so that making of electrical continuity from said first to said second and third conductive paths is prevented.

8. A circuit interrupting device comprising:

 a housing;

a first electrical conductive path disposed at least partially within said housing and terminating at a first connection, said first connection capable of being electrically connected to a source of electricity,

5 a second electrical conductive path disposed at least partially within said housing and terminating at a second connection, said second connection capable of being electrically connected to at least one load when electrical continuity between said first and second electrical conductive paths is made:

10 a third electrical conductive path disposed at least partially within said housing and terminating at a third connection, said third connection being electrically connected to the second electrical conductive path and capable of being electrically connected to at least one user accessible load when electrical continuity between said first and second electrical conductive paths is made;

15 a circuit interrupting portion disposed within said housing and configured to break electrical continuity from said first to said second and third conductive paths upon the occurrence of a predetermined condition;

a reset portion disposed at least partially within said housing and configured to make electrical continuity from said first to said second and /or third conductive paths;

20 said circuit interrupting device further comprising a reset lockout portion that prevents the making of electrical continuity from said first to said second and third conductive paths, if said circuit interrupting portion is non-operational;

wherein said reset portion comprises:

a reset button;

25 at least one reset contact which when depressed is capable of contacting at least a portion of one of said first, second or third conductive paths to cause said predetermined condition, wherein if said circuit interrupting portion is operational, said circuit interrupting portion is activated to disable said reset lockout portion and facilitate making of electrical continuity from said first to said second and third conductive paths, and wherein if said circuit interrupting portion is non-operational, said reset lockout portion remains enabled so that making of electrical continuity from said first to said second and third conductive paths is prevented; and,

shaped member coupled to the circuit interrupting device to block the third connection from being connected to a user accessible load while there is a break in the electrical continuity between the first and third conductive path.

5 9. The circuit interrupting device of claim 8 wherein the shaped member is adapted to assume a first position to block the third connection from being connected to the user accessible load while the circuit interrupting portion is non-operational and a second position to allow the third connection to be connected to the user accessible load while the circuit interrupting portion is operational.

10 10. The circuit interrupting device of claim 9 wherein the shaped comprises a blocking member coupled to a cantilever member controlled by the circuit interrupting portion to position the blocking member to the first or second position.

15 11. The circuit interrupting device of claim 10 wherein the shaped member is non-conducting.

 12. A circuit interrupting device comprising:
housing means;

20 first electrical conductive path means for conducting electricity within said housing means, and capable of electrically connecting to a source of electricity;

 second electrical conductive path means for conducting electricity within said housing means, and capable of electrically connecting to at least one load when electrical continuity between said first and second electrical conductive path means is made;

25 third electrical conductive path means for conducting electricity within said housing means, and capable of electrically connecting to at least one user accessible load when electrical continuity between said first and third electrical conductive path means is made;

 circuit interrupting means disposed within said housing means for breaking electrical continuity from said first to said second and third conductive path means, upon the occurrence of
30 a predetermined condition;

 reset means disposed at least partially within said housing means for reestablishing electrical continuity from said first to said second and third conductive path means;

wherein said reset means comprises:

a reset button;

reset contact means operatively associated with said reset button for activating said
circuit interrupting means by causing said predetermined condition when said reset button is
5 depressed; and

shaped member coupled to the circuit interrupting means to block the third electrical
conductive path means from being connected to the at least one user accessible load during the
occurrence of the predetermined condition.

10 13. The circuit interrupting device of claim 12 wherein the shaped member is adapted
to assume a first position to block the third connection from being connected to the user
accessible load upon the occurrence of the predetermined condition and a second position to
allow the third connection to be connected to the user accessible load upon the termination of the
predetermined condition.

15 14. The circuit interrupting device of claim 13 wherein the shaped member comprises
a blocking member coupled to a cantilever member controlled by the circuit interrupting means
to position the blocking member to the first or second position.

20 15. The circuit interrupting device of claim 14 wherein the shaped member is non-
conducting.

16. A circuit interrupting system comprising:
a source of power;
25 a circuit interrupting device having fault protection at both line and load sides of said
device connected to said source of power;
at least one load connected to said circuit interrupting device;
wherein said circuit interrupting device comprises:
a housing;
30 a phase conductive path and a neutral conductive path each disposed at least partially
within said housing between a line side and a load side, said phase conductive path terminating
at a first connection capable of being electrically connected to a source of electricity, a second

connection capable of conducting electricity to at least one load and a third connection capable of conducting electricity to at least one user accessible load, and said neutral conductive path terminating at a first connection capable of being electrically connected to a source of electricity, a second connection capable of providing a neutral connection to said at least one load and a third connection capable of providing a neutral connection to said at least one user accessible load;

a circuit interrupting portion disposed within said housing and configured to cause electrical discontinuity in said phase and neutral conductive paths at both said line side and said load side upon the occurrence of a predetermined condition;

a reset portion disposed at least partially within said housing and configured to reestablish electrical continuity in said phase and neutral conductive paths;

said circuit interrupting device further comprising a reset lockout portion that prevents reestablishing electrical continuity in said phase and neutral conductive paths if said circuit interrupting portion is non-operational or if an open neutral condition exists;

wherein said reset portion comprises;

a reset button;

at least one reset contact which when depressed is capable of contacting at least a portion of said phase conductive path to cause said predetermined condition wherein if said circuit interrupting portion is operational, said circuit interrupting portion is activated to disable said reset lockout portion and facilitate reestablishing electrical continuity in said phase and neutral conductive paths, and wherein if said circuit interrupting portion is non-operational, said reset lockout portion remains enabled so the reestablishing electrical continuity in said phase and neutral conductive paths is prevented; and

shaped member coupled to the circuit interrupting portion to block the third connection from being connected to the at least one user accessible load while the circuit interrupting device is non-operational or if an open neutral condition exists.

17. The circuit interrupting device of claim 16 wherein the shaped member is adapted to assume a first position to prevent the third connection being connected to the user accessible load while the circuit interrupting portion is non-operational and a second position to allow the

third connection to be connected to the user accessible load while the circuit interrupting portion is operational.

5 18. The circuit interrupting device of claim 17 wherein the shaped member is positioned to the first or second position by the circuit interrupting portion.

10 19. The circuit interrupting device of claim 18 wherein the shaped member comprises a blocking member coupled to be moved by a cantilever member which engages the circuit interrupting portion.

15 20. The circuit interrupting device of claim 19 wherein the shaped member is non-conducting.